

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

INTERNATIONAL BUSINESS MACHINES CORPORATION,	)	
	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 16-122-LPS
	)	
GROUPON, INC.,	)	
	)	
Defendant.	)	

**ANSWERING BRIEF OF GROUPON, INC. IN OPPOSITION TO  
MOTION FOR SUMMARY JUDGMENT OF NO ANTICIPATION BY  
MORRIS AND NO OBVIOUSNESS IN VIEW OF MORRIS AND  
XEROX STAR FOR THE ASSERTED CLAIMS OF U.S. PATENT NO. 5,796,967**

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The Court should deny IBM's motion for summary judgment that the asserted claims of U.S. Patent No. 5,796,967 (the "'967 patent") are not anticipated by the Morris reference or obvious in light of the combination of Morris with the Xerox Star system (D.I. 220) because 1) Morris discloses every limitation IBM identifies as purportedly missing and 2) the combination of Morris and Xerox Star renders the claims obvious and IBM applies a legally incorrect framework.

### **NATURE AND STAGE OF THE PROCEEDINGS**

The nature and stage of the proceedings is identical to the ones described in Groupon's Memorandum in Support of Motion for Summary Judgment filed on March 5, 2018. (D.I. 227.)

### **SUMMARY OF THE ARGUMENT**

1. Because IBM ignores key disclosures in Morris and Groupon's technical expert, Dr. Jon Weissman, identified the disclosures that describe every limitation that IBM claims is missing, IBM's motion must be denied.

2. IBM's motion should also be denied because it fails to address Groupon's obviousness argument under the correct legal standard, attacking each reference piecemeal rather than looking at whether "the subject matter as a whole" would have been obvious as the case law requires. *Boundary Sols., Inc. v. Corelogic, Inc.*, 711 F. App'x 627, 631 (Fed. Cir. 2017). And in the process, IBM ignores relevant disclosures in the prior art references and Dr. Weissman's opinions.

### **STATEMENT OF FACTS<sup>1</sup>**

#### **I. OVERVIEW OF THE '967 PATENT**

The '967 patent is titled "Method for Presenting Applications in an Interactive Service" and was filed on July 15, 1988. It describes and claims a way of generating screen displays that are broken into partitions for presenting interactive applications over a network, with commands to navigate within and between the applications. (Declaration of Saina Shamilov ("Shamilov

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<sup>1</sup> As evidenced in this opposition, Groupon disputes several of IBMs purportedly "undisputed" facts, which mischaracterize Groupon's expert opinions.

Decl.”), Ex. 1 (’967 patent) at 2:41-3:8; *see also id.* at 9:41-44.) IBM has asserted infringement of independent claim 1 and dependent claims 2-7, 12, and 17, which depend from claim 1.

## **II. OVERVIEW OF MORRIS**

The Morris reference is a paper by James Morris, et al. entitled “Andrew: A Distributed Personal Computing Environment,” and describes the Andrew Project, a distributed computing environment developed at Carnegie Mellon University beginning in 1982. (Shamilov Decl., Ex. 2 at 21-22.) The Andrew project presented interactive applications using windowed interfaces in a distributed networked environment. (*Id.*) The Morris paper describes Xerox Star as an inspiration for the screen displays developed for the project. (*Id.* at 70.) As Morris describes, the Andrew system used a local caching system for data objects such as files where “if the [local] copy is not current, a fresh copy is fetched from the appropriate file server.” (*Id.* at 84, 89-90.)

## **III. OVERVIEW OF XEROX STAR**

The Xerox Star workstation, named Xerox 8010 Information System, was the first commercial system to incorporate various technologies that have since become standard in personal computers, including a window-based graphical user interface, icons, folders, two-button mouse, Ethernet networking, file servers, print servers, and e-mail. (*Id.* at 22.) It included an “object-oriented interface” and was available before the ’967 patent. (*Id.* at 22, 70; Shamilov Decl., Ex. 6 at GROUP0011668.) In his opening report, Dr. Weissman describes several publications—all before the ’967 patent—that disclosed the Xerox Star system. (Ex. 2 at 22.)

## **ARGUMENT**

### **I. MORRIS ANTICIPATES THE ASSERTED CLAIMS.**

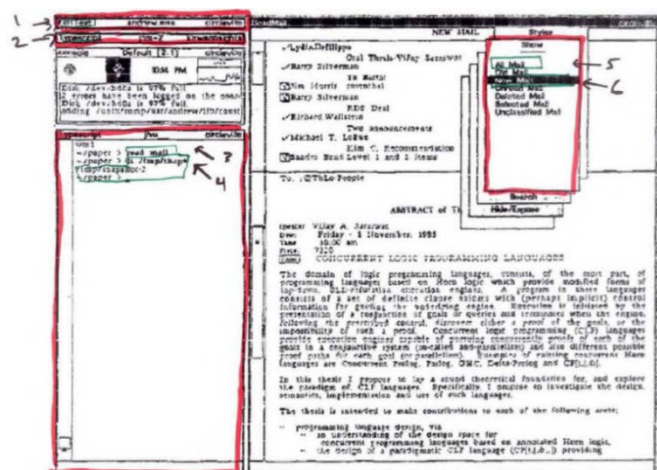
Claim 1 of the ’967 patent requires a “second partition” that is “constructed from objects, the objects being retrieved from the objects stored at the respective reception system,” or, if the objects are unavailable, “then from the network.” Dependent claim 2 requires that the “objects”

“include[] a header and one or more data segments,” and claim 4 adds the requirement that the “objects” from claim 1 have “a storage control parameter in their respective headers.” The Court construed “object” as “data structure,” and adopted the parties’ agreed constructions for “storage control parameter” as “a parameter that identifies the storage characteristic for the object, which may be for initial and/or continued storage” and “the objects being retrieved from the objects stored at the respective reception system, or if unavailable from the objects stored at the respective reception system, then from the network” as “the objects being retrieved from the objects stored at the respective reception system, or, if the current versions of the objects are not present from the objects stored at the respective reception system, then from the network.” (D.I. 120 at 9, 5 n.1; D.I. 64 at 11, 12.) Contrary to IBM’s assertions, Morris discloses all of these limitations.

#### A. Morris Discloses Objects Used to Create a Second Partition.

Morris does disclose a second partition created from “objects” as construed by the Court. In his reports, Dr. Weissman explained that files of the distributed Andrew file system described in Morris are the claimed objects. These files are represented as data structures called i-nodes. And they hold data with specific structure. (Ex. 2 at 83-84, 100; Shamilov Decl., Ex. 3 at ¶¶ 78, 88-90.) Accordingly, Morris discloses data structures that are the claimed objects.

Dr. Weissman also explained that the objects in Morris are used to create partitions. For example, files on a local computer create a partition on the left of Figure 11 in Morris (shown right). (Shamilov Decl., Ex. 4 (“Weissman Depo.”) at 351:6-352:1.) And that partition displays command functions. (*Id.* at 351:6-15, 352:2-11; *see also* IBM’s Br. at 6.) Thus, Morris discloses a



second partition constructed from objects as the claims of the '967 patent require.

Finally, Morris discloses that its files can be “retrieved from the reception system, or if not present, from the network.” Dr. Weissman explained in his reports:

Morris further discloses that these displayed objects (e.g. data or programs) are retrieved at the respective reception system (i.e. the local client computer, VIRTUE) if the object (i.e. file) is cached locally. Otherwise, the object will be retrieved across the network from the server . . . .

(Ex. 2 at 92; *see also id.* (“When an application program makes a system call to open a file, the request is first examined by the workstation operating system to determine whether the file is local or shared. . . . If the file is not present in the cache, or if the copy is not current, a fresh copy is fetched from the appropriate file server.”) (quoting Morris at 189-190).) IBM ignores this disclosure in Morris and Dr. Weissman’s analysis of it. Its request for summary judgment fails for this reason alone.

Further, throughout its brief, by discussing Dr. Weissman’s annotations of the figure on page 6 of the motion, IBM appears to argue that the '967 patent claims require not only that the second partition be created from objects, but that the commands within the second partition also be created from objects. (IBM’s Br. at 6-7 (arguing that the “portions of text” representing commands must be created from objects.) There is no such requirement in the claims. The claims require “partitions being constructed from objects” and a second partition “for presenting a plurality of command functions.” Nowhere does the claim or the Court’s claim constructions<sup>2</sup> require that the command functions presented within the second partition also be created from objects.<sup>3</sup>

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<sup>2</sup> The Court construed “a second partition for presenting a plurality of command functions” as “a second area for presenting a plurality of command functions.” (D.I. 120 at 5.)

<sup>3</sup> This is a much narrower interpretation of the claims than the Court has proffered, and it is not the interpretation that IBM applied in its infringement analysis in this case. In fact, nowhere does IBM’s expert identify objects corresponding to command functions in his mapping of the claims to Groupon’s website. (Shamilov Decl., Ex. 5 at 127-133.) “It is axiomatic that claims are construed the same way for both invalidity and infringement.” *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330 (Fed. Cir. 2003) (citations omitted).

But even if they did, IBM's motion should still be denied. During his deposition, Dr. Weissman did identify command functions created from objects in Morris (and in Xerox Star). (Weissman Depo. at 352:2-11 ("the command[] you're seeing depicted here . . . is a file, an object."); *see also id.* at 373:2-374:14 ("The icons shown in the -- what we call partition 2 . . . will take you to various applications. . . . These are icons which are disclosed in Xerox Star as being objects.")) Dr. Weissman did not "equivocate," as IBM claims. Rather, he pointed to certain commands that are created from files in Morris, and others that are part of a file, such as a menu in a larger program. (Weissman Depo. at 358:8-16, 362:15-24.) IBM's entire argument is, at best, an argument about the sufficiency of the disclosures identified by Dr. Weissman and summary judgment on that basis should be denied. *See Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 1346 (Fed. Cir. 2000).

#### **B. Morris Discloses Objects with a Header.**

In his reports, Dr. Weissman explained that Morris discloses that its Andrew project used "the Berkeley UNIX file system" and "a person of ordinary skill in the art would understand that the i-node structure contains a header consisting of attributes or metadata and references to the actual data"—data segments that identify the contents of associated files stored on disk. (Ex. 2 at 100; Ex. 3 at ¶¶ 88-89.) Dr. Weissman did not need to label his opinion as "an inherency theory;" he clearly stated that one skilled in the art would know that the Berkley UNIX files system implements files with i-nodes and that those i-nodes include headers of metadata and data segments—the Berkley UNIX file system has only one architecture. (IBM's Br. at 7; Ex. 2 at 100.) Indeed, IBM's expert, Dr. Schmidt, opined in his reports about these i-nodes, confirming that they are well known to a person of skill in the art. (Shamilov Decl. Ex. 7 ¶ 550.) Nor did Dr. Schmidt dispute how the Berkley UNIX files system works. IBM cannot credibly claim that it was not on notice of Dr. Weissman's opinions.



IBM also contends that there is no header within the object, because, according to IBM, i-nodes are stored elsewhere from the data. (IBM's Br. at 7.) But IBM fails to explain why this is relevant. It is not. Both, in his reports and deposition, Dr. Weissman explained that "an inode is the object," "it contains a header in the form of the metadata" and "pointers to the data." (Weissman Depo. at 342:7-20.) There is nothing in the claims, or the patents, that requires a specific arrangement of data physically stored on disk or specifies that pointers cannot be utilized by a file system storing the objects. That IBM disagrees with Dr. Weissman's opinion that "an inode is the object" of the claims is a dispute to be resolved by the jury, not by the Court at summary judgment.

### **C. Morris Discloses Object Headers with Storage Control Parameters.**

IBM selectively quotes from Dr. Weissman's reports, while ignoring his other relevant opinions. Not only did Dr. Weissman identify that storage control parameters include file path names, but he explained that they also include size parameters stored *in the i-nodes*, including timestamps used by the caching algorithm to determine where to store a file object. The document cited by Dr. Schmidt in his rebuttal confirms this, reciting that "[a]n inode contains . . . time stamps marking last modification and access times for the file." (Ex. 7 ¶ 550; Shamilov Decl., Ex. 8 at IBM-GROUPON00119427; Ex. 2 at 106.) Dr. Weissman further explained that these timestamps are used to validate cache entries, i.e. to determine whether a cached copy is "the current version[] of the object" and should be kept or replaced from the network server. (Ex. 2 at 106; Ex. 3 at ¶ 97.) These opinions, based on the disclosures of Morris and not addressed by IBM, raise at least a triable issue of fact as to whether the disclosures of Morris anticipate or in combination with Xerox Star render obvious claim 4. *MobileMedia Ideas LLC v. Apple Inc.*, 780 F.3d 1159, 1167 (Fed. Cir. 2015) ("What a particular reference discloses is a question of fact . . ."). To the extent that the Court were to find that Morris does not inherently disclose i-nodes by disclosing the file

system of which they are a necessary part, Dr. Weissman has amply demonstrated that such information was within the knowledge of one of ordinary skill in the art and supports Groupon's obviousness theory.

## **II. THE COMBINATION OF MORRIS AND XEROX STAR RENDERS THE ASSERTED CLAIMS OBVIOUS.**

As shown above, Morris alone discloses each of the limitations identified by IBM in its opening brief and anticipates the '967 patent. Although anticipation and obviousness are separate conditions of patentability and thus different defenses, "it is commonly understood that prior art references that anticipate a claim will usually render that claim obvious." *Cohesive Techs., Inc. v. Waters Corp.*, 543 F. 3d 1351, 1364 (Fed. Cir. 2008); *see also Jones v. Hardy*, 727 F.2d 1524, 1529 (Fed. Cir. 1984). Further, the Xerox system inspired aspects of the Andrew system described in Morris, whose authors "chose a[n] . . . approach, based partly on the Xerox Star." (Ex. 2 at 70 (citing Morris at 195 (D.I. 221, Ex. A).) Thus, one skilled in the art would be motivated to look into the Xerox system disclosures when learning about the Andrew system of Morris. (*Id.* at 70.) And their combination renders the '967 patent obvious. Each of IBM's arguments to the contrary fails, as described below.

As an initial matter, IBM contends that if neither Morris nor Xerox Star explicitly disclose a particular limitation, then the combination thereof cannot render such a limitation obvious. (*See* IBM's Br. at 12 ("As discussed above, neither Morris nor Xerox Star disclose several key elements of claims 1, 2, and 4. Therefore . . . Morris in combination with Xerox Star does not render obvious claims 1, 2-7, 12, and 17 of the '967 patent and summary judgment should be granted.")) But this is contrary to the well-established law of obviousness. The law requires that "[r]ather than look[ing] to whether individual elements of the Asserted Claims are present in the prior art, the actual question we must address is whether . . . the 'subject matter as a whole' would have been obvious." *Boundary Sols., Inc. v. Corelogic, Inc.*, 711 F. App'x 627, 631 (Fed. Cir. 2017); *see also*

*In re Keller*, 642 F.2d 413, 426 (C.C.P.A. 1981) (citation omitted) (finding that “one cannot show non-obviousness by attacking references individually where . . . the [grounds for invalidity] are based on combinations of references”). Dr. Weissman establishes so in his reports. That IBM disagrees with him is not a valid basis for a grant of summary judgment.

And, as demonstrated above, Morris alone discloses a second partition created from objects, as well as teaches one of skill in the art how to cache and retrieve objects from the network if the current version is unavailable. And, in his reports, Dr. Weissman identified multiple objects used to construct the display of the Xerox Star user interface. Dr. Weissman explained that “objects are displayed as small pictures or ‘icons,’ as shown in figure 2” of Xerox Star. (Ex. 2 at 99). These objects are “application icons [which] permit navigation between applications by mouse clicks” and are part of “a second partition in the form of a ‘desktop.’” (*Id.* at 98-99 (quoting the Xerox Star reference); *see also id.* at 85 (“Data icons represent objects on which actions are performed.” (citation omitted)).) He explained it again in his deposition, noting that the objects he identified “are icons which are disclosed in Xerox Star as being objects.” (Weissman Depo. at 373:2-8; 374:10-14). Thus, as Dr. Weissman explained in his reports and deposition, the combination of Morris and Xerox Star would teach one of skill in the art a second partition created from objects.

Further, Morris describes the process of retrieving content from a user’s reception system, or if unavailable, from the network. Morris also discloses both object headers and storage control parameters in the form of file i-nodes and their associated metadata. As described above, in Xerox Star, application icons are objects in the identified second partition. Thus, as Dr. Weissman explained in his reports and deposition, the combination would teach one of skill in the art each of the allegedly missing elements of the Asserted Claims. *Cohesive Techs.*, 543 F. 3d at 1364.

## CONCLUSION

For the foregoing reasons, Groupon respectfully requests that the Court deny IBM’s motion

for summary judgment.

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